THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

_____

Ex parte TIMOTHY J. CHAINER and LUBOMYR T. ROMANKIW

_____

Appeal No. 1997-3742
Application 08/405,561

_____

ON BRIEF

_____

Before KRASS, FLEMING, and HECKER, **Administrative Patent Judges**.

FLEMING, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the rejection of claims 1, 3, 4, 6 through 10, 24, and 25. Claims 11 through 23 are

objected to, for depending upon a rejected base claim.[1]

Claims 2 and 5 have been canceled.

Appellants' invention relates to micro sized data storage disks or microfiles. As disclosed on page 3 of the specification, an integrated microfile includes a rotatably supported magnetic disk, a movable access head, and a micromotor with a rotor and a stator. More specifically, Appellants on

page 5 of the specification and Fig. 4 show that the rotor 16 and the rotor poles 18 are integrated with the storage disk 12 in a one-piece assembly. A stator 20 having stator poles 22 is formed around the rotor to drive the motor and rotate the disk so that data storage sectors may be selectively accessed.

Representative independent claim 1 is reproduced as follows:

1. A microfile comprising:

a rotatably supported storage disk for storing data;

a micromotor for rotating said disk and including a rotor integrated with said disk in a one-piece assembly, and also including a stator, said rotor having a plurality of magnetic rotor poles extending radially outwardly from a perimeter

[1] The Examiner has withdrawn the rejection of claims 11 through 23 in the answer.

thereof and being circumferentially spaced apart therearound, and said stator having a plurality of magnetic stator poles circumferentially spaced apart from each other around said rotor for sequentially cooperating with respective ones of said rotor poles for rotating said rotor to rotate said disk;

a selectively movable access head for selectively addressing said data on said disk

each of said stator poles comprising a magnetic core integrally wound with an electrically conducting coil for generating a magnetic flux through said core upon energizing thereof; and

said stator pole cores and coils being integrated on a substrate and comprising deposited magnetic material and deposited conducting material; respectively, and a dielectric therebetween.

The Examiner relies on the following references:

Goss 3,553,662 Sep. 8, 1967
Cooper et al. 5,257,151 Oct. 26, 1993 (Cooper)

Ahn et al. (Ahn), *"A Planar Variable Reluctance Magnetic Micromotor With Fully Integrated Stator And wrapped Coils,"* IEEE, Feb. 1993, pp. 1-5.

Claims 1, 3, 4, 6 through 9, and 24 stand rejected under 35 U.S.C. § 103 over Cooper and Ahn. Claims 10 and 25 stand rejected under 35 U.S.C. § 103 over Cooper, Ahn, and Goss.

Rather than repeat the arguments of Appellants and the Examiner, we make reference to the briefs[2] and the answers[3] for the details thereof.

OPINION

After careful review of the evidence before us, we do not agree with the Examiner that claims 1, 3, 4, 6 through 10, 24, and 25 are properly rejected under 35 U.S.C. § 103. Accordingly, we reverse.

It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. ***In re Sernaker***, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." ***Para-Ordnance Mfg. v. SGS***

---

[2] Appellants filed an appeal brief on November 21, 1996. Appellants also filed a reply brief on February 13, 1997 which was acknowledged and entered by the Examiner with further comments in a supplemental answer.

[3] The Examiner mailed an answer on January 27, 1997 and a supplemental answer on April 29, 1997.

Importers Int'l, Inc., 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), ***cert. denied***, 519 U.S. 822 (1996) ***citing W.L. Gore & Assoc., Inc. v. Garlock, Inc***., 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), ***cert. denied***, 469 U.S. 851 (1984).

Turning to the rejection of claims 1, 3, 4, 6 through 9, and 24 under 35 U.S.C. § 103, Appellants on page 6 of the brief argue that contrary to the "integrated" and "one-piece assembly" as recited in claim 1, Cooper's disk and rotor are separate and distinct elements secured together. Appellants on pages 8 and 9 of the brief add that the Examiner's reason or suggestion for combining Cooper's storage device and Ahn's micromotor is unsupported.

In response to Appellants' arguments, the Examiner on page 9 of the answer points out that Cooper's rotor ring and disk are integrated by bringing parts together in a one-piece assembly. The Examiner adds that the combination of Cooper and Ahn would have been obvious to one of ordinary skill in the art since the advantages of using micromotors in magnetic drive motors were known.

After a review of the disclosure, we find that the limitation of “a rotor integrated with said disk in a one-piece assembly,” as recited in independent claim 1, is consistently supported by the specification and the drawings to be a unified one-piece structure. Therefore, the Examiner has improperly interpreted Appellants' one-piece rotor and disk to be similar to Cooper’s disk and rotor. ***See In re Morris***, 127 F.3d 1048, 1055, 44 USPQ2d 1023, 1029 (Fed. Cir. 1997) (the term “integral” covers more than a unitary construction).

The Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." ***In re Fritch***, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), ***citing In re Gordon***, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). The Federal Circuit reasons in ***Para-Ordnance Mfg. Inc. v. SGS Importers Int’l Inc.***, 73 F.3d 1085, 1088-89, 37 USPQ2d 1237, 1239-40 (Fed. Cir. 1995), ***cert. denied***, 519 U.S. 822 (1996), that for the

determination of obviousness, the court must answer whether one of ordinary skill in the art who sets out to solve the problem and who had before him in his workshop the prior art, would have been reasonably expected to use the solution that is claimed by the Appellants.

We disagree with the Examiner that the advantages of modifying Cooper's stator, rotor, and coils with the micromotor of Ahn in the area of magnetic drives were known to one of ordinary skill in the art. Cooper is concerned with a disk file of reduced size by putting discrete and separate components together. More specifically, Cooper in col. 6, lines 56 and 57 discloses that a ring of rotor magnets is attached to the rim of each disk. However, Cooper is silent with regard to an integrated and one-piece disk and rotor combination. Ahn teaches a magnetic micromotor formed on a silicon wafer using micromachining process. Ahn on page 1, col. 1 further indicates that such micromotors are useful in biomedical applications without making any reference to other applications such as storage devices.

We fail to find any suggestion or teaching to use Ahn's micromotor in combination with Cooper's data storage device

such that the rotor and the storage disk may form an integrated one-piece assembly as recited in Appellants' claim 1. Therefore, we reverse the rejection of claims 1, 3, 4, 6 through 9, and 24 under 35 U.S.C. § 103 over Cooper and Ahn.

Turning to the rejection of claims 10 and 25, Appellants on pages 17 through 19 of the brief point out that claim 10 recites a pair of microfiles each including a storage device similar to that recited in claim 1 and provide similar arguments. We note that claim 10 is the only other independent claim and recites the limitation of "a rotor integrated with said disk in a one-piece assembly." For the same reasons as discussed above, we reverse the rejection of claims 10 and 25 under 35 U.S.C. § 103 over Cooper, Ahn, and Goss.

In view of the forgoing, the decision of the Examiner rejecting claims 1, 3, 4, 6 through 10, 24, and 25 under 35 U.S.C. § 103 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R.

§ 1.136(a).

REVERSED

ERROL A. KRASS Administrative Patent Judge	)	
MICHAEL R. FLEMING Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
STUART N. HECKER Administrative Patent Judge	)	

MRF/mds/lmb

STEPHEN S. STRUNCK
INTELLECTUAL PROPERTY LAW DEPT.

IBM CORPORATION
P.O. BOX 218
YORKTOWN HEIGHTS, NY 10598